

REMARKS

In the Office Action dated July 23, 2008, informalities were noted in claims 1, 11 and 15, which caused all of the claims to be rejected under Section 112, first and second paragraphs. Those informalities have been corrected, and the claims are submitted to be in full compliance with all provisions of Section 112, first and second paragraphs.

Claims 1-5, 10, 11 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable based on Gropper et al and Slack.

This rejection is respectfully traversed for the following reasons.

The medical system and method for operating a medical system disclosed and claimed in the present application are for the purpose of allowing a user at a workstation to have an additional flexibility feature in displaying a multi-component image at that workstation. As explained in the present specification, and is known to those of ordinary skill in the field of medical imaging, a multi-component image is an image that is composed of a series of individual examination images. An example of such a multi-component image is an image of the spine that is composed of a number of individual images obtained along the longitudinal length of the examination subject. These individual images are then combined or composed in order to form an overall image of the spine. Due to the length of the spine, it is not possible to obtain an image dataset represented by a single image that is large enough to encompass the entirety of the spine.

Each individual examination image in the series that is used to form the multi-component image has a slice thickness. As also explained in the present specification, when assembling or compiling the multiple images at a workstation to compose the multi-component image, it has been conventionally possible to select,

for each individual examination image, attributes or characteristics thereof such as the image number (i.e. its sequence within the overall series), and/or image quality, such as resolution. Slice thickness, however, has not conventionally been among the variables that could be selected by a user. A pre-requisite for a user being able to select a characteristic of the individual images when compiling the multi-component image at a workstation is for the individual examination image to be provided with a parameter that is linked to the variable feature. This parameter can be said to give “access” to the user to the particular feature or attribute that is being selected or varied. If the individual image does not have a parameter that is linked to a feature in question, that feature cannot be varied by the user, because there is no “mechanism” to access such variation. In accordance with the present invention, in addition to other parameters that are conventionally provided, the individual packets that respectively represent the examination images, that will be used to subsequently compile a multi-component image, are each provided with a parameter that allows selection of the slice thickness of that individual slice, along a slice thickness progression. Therefore, when the user at a workstation to which the data have been transferred is compiling the multi-component image, the user has the possibility, by selecting the parameter along the slice thickness progression, to set the slice thickness of each individual examination image in the composed multi-component image. This allows the user to precisely set or adjust the boundaries between respective, successive images in the sequence, or to use more of one image and less of another, dependent on the selection of the slice thickness.

The Examiner acknowledged that the Gropper et al reference does not explicitly disclose the generation of JPEG data that include slice thickness information. This is a true statement, since the JPEG 2000 data storage protocol, as

noted above, does not contemplate the possibility of making slice thickness variable, and therefore there is no need to include any parameter in the stored data packet for a particular image that would identify slice thickness. The Examiner relied on the Slack reference as disclosing a method and system for selecting and displaying medical image data wherein the acquired data include an indication of the slice thickness from which the data were acquired. In the Slack reference, however, although this slice thickness can be initially set to some value, every slice is then acquired with the same slice thickness that has been selected, and information regarding the slice thickness that has been selected can then be included in the dataset as an identification of one of the many parameters that were selected to produce that dataset. There is no possibility disclosed in the Slack reference, however, to include a parameter in the image dataset for a particular image that indicates a slice thickness *progression*, which is the pre-requisite necessary in order to allow a user to make a *selection* of slice thickness, when reconstructing an image based on the data in the dataset, with regard to slice thickness. The slice thickness information disclosed in the Slack reference is simply set once, and is then used to acquire all of the datasets for a particular examination, and then that information is reflected in those datasets.

Modifying the Gropper et al reference in accordance with the teachings of the Slack reference, therefore, would merely result in the capability (which is probably already present anyway) in the Gropper et al reference of being able to select a particular slice thickness, and then, according to the teachings of Slack, to include a designation of the already-selected slice thickness in the acquired dataset. Such a modified version of Gropper et al, however, still would not permit the user to selectively set different slice thicknesses for different examination images when

compiling a multi-component image therefrom at a workstation. For this purpose, it is not merely necessary to have a parameter that indicates slice thickness, it is necessary to have a parameter in the acquired dataset that permits adjustment or selecting of the slice thickness when that dataset is reconstructed and displayed.

Therefore, none of claims 1-5, 10, 11, 13 or 15 would have been obvious to a person of ordinary skill in the field of displaying medical images, under the provisions of 35 U.S.C. §103(a), based on the teachings of Gropper et al and Slack.

Claim 6 was rejected under 35 U.S.C. §103(a) based on the combination of Gropper and Slack, further in view of Sirohey et al. Claims 7-9, 12 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Gropper et al and Slack, further in view of Onno et al.

The above arguments with regard to the Gropper et al and Slack combination are equally applicable to these rejections. Even if the Gropper et al/Slack combination were further modified in accordance with the teachings of any of the aforementioned additional references, the subject matter of these respective dependent claims still would not result, for the reasons discussed above in connection with independent claims 1 and 11.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Applicants herewith request an extension of time of two months, so that the period for responding to the July 23, 2008 Office Action is extended from October 23, to December 23, 2008. This response is accompanied by electronic payment in the amount of \$490.00 for the fee required by 37 C.F.R. §1.17(a)(2).

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

Submitted by,

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